

Amendments to the Specification:

*Please replace the paragraph beginning at page 23, line 11, with the following amended paragraph:*

The second antibody can be labeled with a detectable moiety, e.g., a radioactive moiety (e.g.,  $^{35}\text{S}$ ,  $^{32}\text{P}$ ,  $^3\text{H}$ , or  $^{14}\text{C}$ ), a chemiluminescent moiety (e.g., Streptavidin-Alkaline Phosphatase, Streptavidin-Horseradish Peroxidase, Streptavidin-Biotinylated Horseradish Peroxidase, e.g., for detection with ECL<sup>TM</sup> or a variant thereof (Amersham Biosciences, Piscataway, NJ)), a fluorescent moiety (e.g., CYDYEST<sup>TM</sup> cyanine-derived fluorescent dyes (such as ~~Cy3, Cy3B, Cy3.5, Cy5, Cy5.5, Cy7, Cy5Q, Cy7Q, Cy2 Streptavidin, Cy3 Streptavidin, Cy5 Streptavidin~~ CY<sup>TM</sup>3, CY<sup>TM</sup>3B, CY<sup>TM</sup>3.5 CY<sup>TM</sup>5, CY<sup>TM</sup>5.5, CY<sup>TM</sup>7, CY<sup>TM</sup>5Q, CY<sup>TM</sup>7Q, CY<sup>TM</sup>2-Streptavidin, CY<sup>TM</sup>3-Streptavidin, CY<sup>TM</sup>5-Streptavidin, Streptavidin-Fluorescein, Streptavidin-Texas Red (Amersham Biosciences, Piscataway, NJ), fluorescein, rhodamine, Texas red, cyanine, Cascade Blue, or phycoerythrin), quantum dots (see, e.g., Watson *et al.*, BioTechniques 2003 Feb; 34(2):296-300, 302-3; Goldman *et al.*, J. Am. Chem. Soc. 2002 Jun 5;124(22):6378-82; Han *et al.*, Nat. Biotechnol. 2001 Jul;19(7):631-5; Chan *et al.*, Science 1998 Sep 25;281(5385):2016-8), or other directly or indirectly detectable moiety (e.g., gold or other particles). These moieties can be detected using methods known in the art. For example, a number of methods are known in the art for detection of fluorescent moieties, including, but not limited to, fluorescence polarization (FP), fluorescence resonance energy transfer (FRET), time-resolved fluorescence resonance energy transfer (TR-FRET), and fluorescence intensity (FI).

*Please replace the paragraph beginning at page 24, line 5, with the following amended paragraph:*

The following materials were used in the examples described below. PBST was 1x PBS; 0.05% Triton X100; filtered and stored at 4°C. The "T cell medium" (for assays) contained 10% Fetal Bovine Serum, heat inactivated; 1:100 Penn-Strep solution (Gibco); 1:100 Glutamine solution (Gibco); 1:100 Hepes solution (Gibco); Fill with 1x RPMI with phenol red (Gibco); and was filtered and stored at 4°C. A "Dilution Solution" was 1 x PBS; 0.3% BSA; 0.1% Triton X-100; and was filtered and stored at 4°C. The cytokine capture antibody and detection antibody,

Avidin-HRP, and AEC Substrate set were commercially available reagents, obtained from B.D. Biosciences Pharmingen, San Diego, CA; streptavidin-Alexa 647 was obtained from Molecular Probes, Eugene, OR; and the LB3.1-Cy-3 was produced by purifying the antibody from hybridoma supernatants and then labeling using an amine-reactive Cy-3 reagent CY<sup>TM</sup>3 from Molecular Probes, Eugene, OR. Other reagents, e.g., homemade reagents can also be used.

*Please replace the paragraph beginning at page 28, line 4, with the following amended paragraph:*

Monoclonal cytokine detection antibody (biotinylated, enough for 1:250 final dilution) was pre-incubated for 15-30 minutes with streptavidin fluorescently labeled with Alexa 647 (enough for 1:1000 final dilution). After pre-incubation, the mixture was diluted Dilution Solution containing an extra 100 micromolar concentration of D-biotin to block non-specific biotin-streptavidin interaction with tetramers in the MHC array. Fluorescently-labeled (CY<sup>TM</sup>3 fluorescent dye) anti-MHC antibody (Cy-3) was added to the diluted mixture for a final concentration of 1:1000. This mixture was used to coat the array inside the hydrophobic barrier (1.0-1.5 mL/array). The array was incubated with the detection antibody solution for 2 hours in the dark at room temperature, then washed 3 times with PBST.

*Please replace the paragraph beginning at page 28, line 16, with the following amended paragraph:*

The slide was blocked after the spots dried, the chip was washed, and then simultaneously stained with ~~LB3.1-Cy3~~ LB3.1 labeled with CY3<sup>TM</sup> fluorescent dye and pre-incubated biotinylated anti-mouse IL2 and streptavidin-Alexa 647.

*Please replace the paragraph beginning at page 28, line 19, with the following amended paragraph:*

The arrays were observed using an Affymetrix array scanner detecting both Cy-3 CY<sup>TM</sup>3 and Alexa 647 fluorescence (Alexa 647 emits at the same wavelengths as CY<sup>TM</sup>5 Cy-5). The spots that show Cy-3 CY<sup>TM</sup>3 fluorescence indicate native-form HLA-DR1 complex (see Figure

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7B), and spots which show ~~Cy-5~~ CY<sup>TM</sup>5 fluorescence indicate captured and detected factors secreted by the T cells (see Figure 7C).